

# Documentation Needed for CD-1

DOE CD-1 means:

- 1) Approval to begin technical design
- 2) Establishment of the project cost range

- **WBS including Dictionary and Cost Book**
- **Conceptual Design Report**
- **Cost, Schedule and Labor estimates**
- **Basis of Estimate documents**
- **Contingency Estimate and Risk Registry – Bottoms up and risk based**
- **Preliminary Project Execution Plan**
- **Safety and Hazard Analysis**
- **Quality Assurance Plan**
- **Acquisition Strategy**
- **Risk Analysis and Mitigation document**
- **National Environmental Policy Act document**
- **Integrated Project Management Team document**
- **Security Vulnerability Assessment**

**Tasks/Durations/Resources entered for all WBS categories**

**> 1000 sPHENIX Project Tasks defined**

**All tasks linked to create a resource-loaded schedule**

- **1.1 Project Management**
- **1.2 Decommissioning**
- **1.3 Magnet**
- **1.4 Tracker**
- **1.5 EM Calorimeter**
- **1.6 Hadronic Calorimeter**
- **1.7 Calorimeter Electronics**
- **1.8 DAQ/Trigger**
- **1.9 Infrastructure**
- **1.10 Integration and Installation**

